

Claims

1. A process for preparing a pressure-sensitive polyacrylate adhesive, characterized in that

a polyacrylate composition including the atomic sequence C – S – C is admixed with at least one metal compound of type (L)_yM where

M = metal atom or metal ion

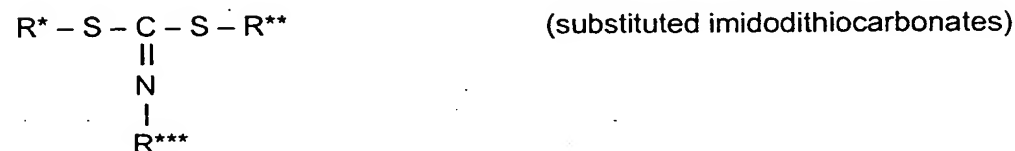
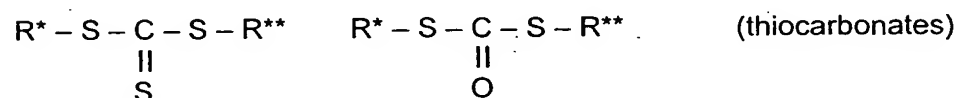
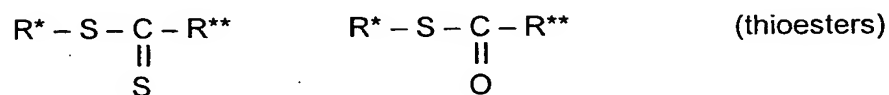
L = counterion or ligand

y = 0 to 6.

2. The process of claim 1, comprising at least the following steps:

- polymerizing the monomer mixture using at least one compound including the atomic sequence C – S – C as regulator,
- additizing with metal compounds of type (L)_yM,
- concentrating the polymer to form a hotmelt composition,
- crosslinking the polymer by means of actinic radiation.

3. The process of at least one of the preceding claims, characterized in that the compound comprising the atomic sequence C – S – C can be represented by one of the following structures:



where R*, R** and R*** independently of one another are aromatic or aliphatic saturated or unsaturated hydrocarbon radicals.

4. The process of claim 3, characterized in that the radicals R*, R** and/or R*** are present wholly or partly in oligomeric and/or polymeric form.

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5. The process of at least one of the preceding claims, characterized in that the metal compound (L)_yM is a metal salt, a metal hydroxide or a metal complex compound.

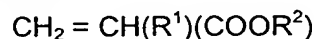
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6. The process of at least one of the preceding claims, characterized in that the polymer is applied to a backing material prior to crosslinking.

7. The process of at least one of the preceding claims, characterized in that the polyacrylate composition is based at least 50% on acrylic monomers.

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8. The process of at least one of the preceding claims, characterized in that the polyacrylate composition is based at least partly on monomers of the general formula



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where

R¹ = H or CH₃

R² = H or a hydrocarbon radical containing 1 to 30 carbon atoms.

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9. The process of at least one of the preceding claims, characterized in that the metal M is selected from the following group:
copper, nickel, iron, zinc, tin, cadmium, aluminum, cobalt, silver, gold.

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10. The process of at least one of the preceding claims, characterized in that the counterions and/or ligands L are selected independently of one another from the following group:
halides, alkoxides, borides, hydroxides, nitrates, ~~oxides~~, phosphates, perchlorates, phthalocyanines, oxinates, acetates, acetylacetonates, carbonates, formates, cyanides, naphthalocyanines, rhodanides (thiocyanates), carboxylates, chelates, resinates, carbides, phosphines, alkyls, alkenyls, alkynyls, diones, aryls, substituted

aryls, citrates, heterocycles, pentadienyl, amines, polyfunctional amines, ethers, crown ethers.

11. A polyacrylate-based pressure-sensitive adhesive, characterized

5 by the presence of at least one metal-sulfur compound of the structure
 $(L)_z - M - (SR)_x$,

where

M represents a metal from the group consisting of Cu, Ni, Fe, Zn, Cd, Al, Co, Ag and Au,

10 R independently at each occurrence denotes aliphatic, aromatic, saturated, unsaturated, oligomeric or polymeric radicals,

L independently at each occurrence represents ions or ligands from the group consisting of halides, alkoxides, borides, hydroxides, nitrates, phosphates, perchlorates, phthalocyanines, oxinates, acetates, acetylacetonates, carbonates, 15 formates, cyanides, naphthalocyanines, thiocyanates, carboxylates, chelates, resinates, carbides, phosphines, alkyls, alkenyls, alkynyls, diones, aryls, substituted aryls, citrates, heterocycles, pentadienyl, amines, polyfunctional amines, ethers, crown ethers.

20 12. The pressure-sensitive adhesive of claim 11, characterized in that

metal-sulfur compounds of the formula $(L)_z - M - (SR)_x$ are present at least at 25 ppm, based on the parent polymer.